

AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Amended) An air traffic information display system comprising:

a data manager placed at the middle tier of a three-tier architecture, the data manager for arbitrating flight, system and airport data transactions in a performance-related manner, the data manager including a first interface and a plurality of second interfaces;

a first database server forming one tier of the three-tier architecture and being connected to the data manager via the first interface; and

a plurality of clients forming the other tier of the three-tier architecture and being capable of coupling to the data manager via the plurality of second interfaces, at least one client being different from the other client, and the second interfaces being common to the plurality of clients; and

a gateway server coupled to the database server through a firewall, the gateway server for moving data from a secure domain to a less secure domain in a non-intrusive manner,

the data manager including module for providing, based on a subscription list for the plurality of clients, data updates in a secure and apportioned manner in accordance thereto.

2. (Previously Amended) A system as claimed in claim 1 wherein the data manager is a primary data manager and further including an alternate data manager capable of coupling to the primary data manager via one of the plurality of second interfaces, the alternate data manager automatically and seamlessly taking over the operation of the primary data manager and becoming the primary data manager.

3. (Original) A system as claimed in claim 1 wherein one of the plurality of clients is an external input/output server.

4. (Currently Amended) A system as claimed in claim 1 wherein at least one of the plurality of clients is a workstation having a display screen includes a dedicated touch screen and a Graphical User Interface that is fully adaptable to user requirements.

5. (Previously Amended) A system as claimed in claim 1 wherein each of the plurality of second interfaces includes a server data manager and a client data manager designed such that the second interfaces are common to the clients which wish to have dynamic real-time read-write access to the flight data, system data and airport data.

6. (Previously Cancelled)

7. (Previously Amended) A system as claimed in claim 1 wherein the data manager maintains, passes and receives lists of data including flight data entries, system information and dynamically updated connection lists, as a streamed object via a streamed socket connection.

8. (Previously Cancelled) A system as claimed in claim 1 wherein the data manager includes a socket connection list.

9. (Previously Cancelled) A system as claimed in claim 1 wherein the data manager includes a system list.

10. (Original) A system as claimed in claim 1 wherein the first database server includes first tables for current data and second tables for logging changes to current data.

11. (Original) A system as claimed in claim 10 wherein the first tables include a flight data table.

12. (Original) A system as claimed in claim 10 wherein the first tables include an airport system table.

13. (Original) A system as claimed in claim 10 wherein the first tables include a system table.

14. (Original) A system as claimed in claim 10 wherein the second tables include a flight data table.

15. (Original) A system as claimed in claim 10 wherein the second tables include an airport system table.

16. (Original) A system as claimed in claim 10 wherein the second tables include a system table.

17. (Original) A system as claimed in claim 1 wherein the first interface is ODBC.

18. (Previously Cancelled)

19. (Currently Amended) A system as claimed in claim 10 wherein the gateway database server includes a gateway database server having third tables for receiving updates from the second tables that are stored on a remote machine across a secure firewall; processing these updates to extract aircraft movements, local aircraft movements and flight transactions; and logging copies of the third tables into fourth tables.

20. (Cancelled)

21. (Currently Amended) A system as claimed in claim ~~18~~ 19 wherein the gateway database server includes fifth tables for storing movements.

22. (Original) A system as claimed in claim 21 wherein the gateway database server includes a module for calculating movements in dependence upon changes in the third tables.

23. (Previously Amended) A method of transmitting and displaying air traffic information using a data manager placed at the middle tier of a three-tier architecture where a database server forming one tier of the three-tier architecture and a plurality of clients forming the other tier of the three-tier architecture, comprising the steps of:

maintaining, passing, receiving or combinations thereof an active and dynamic list of subscribers as a streamed object via a socket connection to add or delete the subscriber, the subscriber being a client and interested in updated data;

receiving and parsing a data update request from the subscriber to determine where the updated data is to be delivered, and what subset of the updated data is to be sent;

changing data object in accordance with the data update request;

ensuring that the data is updated in the database server and in local caches as processing time permits for enhanced reliability;

transmitting, by an active push mode, the updated data or the subset of the updated data only to the client which is a subscriber and is interested in that data.

generating an error and a logging of the error if it fails to receive acknowledgement of a receipt of the updated data from a client.

24. (Previously Cancelled)

25. (Previously Amended) A method as claimed in claim 23 wherein the step of providing the changed data includes providing only the data determined by a criteria included in the list of subscribers.

26. (Original) A method as claimed in claim 23 wherein the step of storing includes storing the changed data in first tables.

27. (Original) A method as claimed in claim 23 wherein the step of storing includes storing a log of data change transactions in second tables.

28. (Original) A method as claimed in claim 26 wherein the first tables include a flight data table.

29. (Original) A method as claimed in claim 26 wherein the first tables include an airport system table.

30. (Original) A method as claimed in claim 26 wherein the first tables include a system table.

31. (Original) A method as claimed in claim 27 wherein the second tables include a flight data table.

32. (Original) A method as claimed in claim 27 wherein the second tables include an airport system table.
33. (Original) A method as claimed in claim 27 wherein the second tables include a system table.
34. (Original) A method as claimed in claim 27 wherein the step of storing includes storing updates from the second tables in third tables.
35. (Original) A method as claimed in claim 34 wherein the step of storing includes logging copies of the third tables in fourth tables.
36. (Original) A method as claimed in claim 34 wherein the step of storing includes calculating movements in dependence upon changes in the third tables.
37. (Original) A method as claimed in claim 36 wherein the step of storing includes storing movements in fifth tables.
38. (Currently Amended) A database system for moving and storing data outside of a secure operational domain,
- a gateway server for moving data from a secure domain to a less secure domain in a non-intrusive manner; and
- a firewall placed between the gateway server and the secure operational domain,
- the gateway server including:
- data storage module; and
- module for transferring operational data from the secure operational domain;
- the firewall configured to allow only specific machines to communicate with the gateway server through the firewall; and
- the firewall further configured to allow only the gateway server to communicate with specific machines through the firewall.